AI-powered Mental Health Chatbot

Aim:
The primary aim of this project is to develop an AI-powered mental health chatbot that provides users with a safe and supportive environment to express their emotions. The chatbot will offer empathetic responses, basic mental health guidance, and resource recommendations while maintaining user privacy and confidentiality. By leveraging AI and API integration, the system will simulate human-like conversations, recognize emotional cues, and enhance user engagement.

Objectives:

1. **Develop a User-Friendly Interface:** Design an intuitive and visually appealing chatbot interface to ensure ease of use and accessibility.
2. **Establish Frontend and Backend Communication:** Implement a seamless connection between the frontend and backend to enable real-time interaction and data processing.
3. **Integrate AI for Contextual Responses:** Incorporate AI-based natural language processing (NLP) to analyse user inputs and generate contextually relevant and emotionally supportive responses.
4. **Implement Basic Sentiment Analysis:** Enhance chatbot intelligence by detecting user sentiments and tailoring responses based on emotional cues such as sadness, anxiety, or happiness.
5. **Ensure Secure Data Handling:** Safeguard user interactions by following data privacy best practices, ensuring no sensitive data is stored or misused.
6. **Enable API Integration for Enhanced Functionality:** Integrate third-party mental health APIs or resources to provide additional support, such as emergency helplines, guided meditation links, or self-help articles.
7. **Improve User Engagement:** Implement features like typing indicators, interactive elements, and smooth animations to create a more engaging and human-like chatbot experience.
8. **Document and Prepare for Deployment:** Maintain proper documentation of code, system architecture, and API usage while deploying the chatbot on a suitable hosting platform for public accessibility.

By achieving these objectives, the project aims to create a digital mental health companion that offers meaningful interactions and contributes to mental well-being.